In the Title:

Please change the title of the present application to:

"A DOUBLE SCREW COMPRESSOR FOR SUPPLYING GAS"

In the Specification:

Please amend the specification as follows:

Please replace the paragraph starting on page 7, line 22, and extending to page 8, line 11, corresponding to paragraph [0022] of the corresponding United States Published Patent Application 2007/0071629 A1 as follows:

-- Fig. 1 shows diagrammatically parts of a double-screw compressor of the type to which the invention relates. The double-screw compressor comprises two rotors parallel to one another in the form of a male screw 10 and a female screw 20. At their ends, the two screws 10, 20 have axially projecting shaft journals 11, 21. It will be understood that, at the ends opposite the shaft journals 11, 21 as well, the screws have corresponding shaft journals (not shown) for mounting the screws in a compressor housing H having opposite sidewalls S~~(not shown)~~ enclosing the screws. A first gearwheel 30 is fixed on the shaft journal 11, and a second gearwheel 40 is fixed in the shaft journal 21. These gearwheels 30, 40 form part of a toothed gearing for synchronization of the rotation of the screws 10, 20. In the embodiment shown, the screws are designed so that the male screw 10 will rotate at twice the rotational speed of the female screw 20. The ratio between the first gearwheel 30 and second gearwheel 40 is therefore 2:1. The toothed gearing also comprises a toothed gearing housing (not shown) which has opposite end walls (not shown) in which the shaft journals 11, 21 and also another two shaft journals (not shown) fastened to respective gearwheels 30, 40 are rotatably mounted. The end walls of the toothed gearing housing and the screws 10, 20 are made of aluminum while the gearwheels 30, 40 are made of steel. The end walls therefore have a greater thermal expansion coefficient than the gearwheels 30, 40. --

Please replace the paragraph on page 8, lines 30-33, corresponding to paragraph [0024] of the corresponding United States Published Patent Application 2007/0071629 A1 as follows:

-- Figure 2 shows the engagement of the gearwheels when the center distance between gearwheels A and B equals~~A_{A-B}~~ = 50.290 mm. As can be seen from figure 2, the backlash f_{A-B} is very small at this center distance. --

Please replace the paragraph starting on page 8, line 35, and extending to page 9, line 3, corresponding to paragraph [0025] of the corresponding United States Published Patent Application 2007/0071629 A1 as follows:

-- Figure 3 shows the same gearwheels A and B when the center distance between gearwheels A and B has increased to equal ~~A'_{A-B} =~~ 50.340 mm. This increase in the center distance has been caused by an increase in the temperature in the end walls, shafts and gearwheels of the toothed gearing, the end walls between shaft centers having been expanded more than the combined expansion of the reference radii of the gearwheels. –

Please replace the paragraph on page 9, lines 9-21, corresponding to paragraph [0027] of the corresponding United States Published Patent Application 2007/0071629 A1 as follows:

-- Figures 4 and 5 show two involute gearwheels C and D designed according to the invention when these are in engagement with one another corresponding to the engagement positions shown in figures 2 and 3 respectively. Gearwheels C and D differ from gearwheels A and B described above only in that their nominal pressure angle $\alpha_C = \alpha_D = 10°$. Otherwise, the data of gearwheel C is identical with that of gearwheel A described above, and the data of gearwheel D is identical with that of gearwheel B. In the engagement shown in figure 4, as in figure 2, the center distance ~~A_{C-D} =~~ between gearwheels C and D equals 20.290 mm. As can be seen clearly from figure 4, the backlash f_{C-D} is then very small. --

Please replace the paragraph on page 9, lines 23-37, corresponding to paragraph [0028] of the corresponding United States Published Patent Application 2007/0071629 A1 as follows:

-- In the engagement shown in figure 5, the center distance has, in the same way as described above with reference to figure 3, between gearwheels C and D has increased to ~~A'_{C-D} =~~ equal 50.340 mm. As can be seen from the figure, the backlash f'_{C-D} has in this connection increased slightly in relation to f_{C-D}. However, a comparison of figures 5 and 3 shows clearly that the difference between f'_{C-D} and f_{C-D} is considerably smaller than the difference between f'_{A-B} and f_{A-B}. This therefore clearly shows that the

dependence of the backlash on temperature-dependent deformations of parts included in the double-screw compressor is reduced considerably if the nominal pressure angle of the gearwheels is selected to be 10° instead of the usual standard nominal pressure angle of 20°. --